

AbstractA SYSTEM FOR TRANSITIONING TO THE TRIP THRESHOLD FOR THE
START CONDITION THERMAL MODEL FOR A MOTOR PROTECTION RELAY

A system used in a protective relay for motors for transitioning the value of the trip threshold to a motor start (stall) condition. The calculated transition trip threshold value follows I^2t , specifically, the current to the motor. The transition trip threshold value includes a small fixed initial (offset) value, so that the increase in the trip threshold during transition to the actual start condition threshold value is always slightly ahead of the increase in the I^2t value, preventing a trip until the input current exceeds the final trip threshold for the start condition.